

BOOK REVIEW

Pogonomyrmex Harvester Ants. Arthur C. Cole, Jr. The University of Tennessee Press, Knoxville. 1968. 222 p., 12 pls. \$7.50.

During the noisy infancy of the *New Systematics* we were often told that subjective taxonomy must be thrown out of the window. The old duffers and the subjective species with which they had cluttered up the literature were both thoroughly discredited. It was held that, once these pathetic antiques had been disposed of, modern taxonomy could begin setting up species by purely objective methods. This last is a highly laudable idea and it might be wished that our brave new taxonomists would stick more closely to it. But it would be awkward for them to do so. Any completely objective approach to a species must include an exhaustive acquaintance with that species in the field. It is far from easy to make such an acquaintance and, when a large and widely distributed genus is involved, to do so may require years of field work. Faced with this difficulty the most ardent advocate of the *New Systematics* is usually willing to settle for something less than complete objectivity in his taxonomic studies.

Dr. Arthur C. Cole appears to be a notable exception to the above rule. During the past forty years he has taken the time and the trouble to acquire a unique field acquaintance with the North American species of *Pogonomyrmex*. Of the twenty-two species treated in the volume only two have been able to elude Dr. Cole in the field. But it should be remembered that this enviable record required more than a dozen summers of intensive collecting in the western United States and northern Mexico. It appears that Dr. Cole spent about five years in the field before he was satisfied that he had a field knowledge of *Pogonomyrmex* that was good enough to permit him to begin his laboratory analysis. One wonders how many of our brave new taxonomists would willingly spend that much time and effort for the sake of gaining an objective view.

With such a background it is not surprising that Dr. Cole has produced what is, by very long odds, the best study of our *Pogonomyrmex* yet published. But it is surprising that his objective treatment of our species has caused remarkably little damage to the previously existing taxonomic structure of the group. It is heartening to discover that eight of the nine species of North American *Pogonomyrmex* which W. M. Wheeler listed in 1910 are still in good taxonomic standing. This is not to say that Dr. Cole has made no revisionary changes. Several forms hitherto considered subspecies have been raised to specific rank and an even larger number of subspecies have been placed in the synonymy of their respective species. Dr. Cole has shown that Kusnezov's proposal to treat *Ephebomyrmex* as a separate genus is unacceptable and he has also given reasons why *huachucanus* should be transferred to the subgenus *Ephebomyrmex*. Dr. Cole has recognized four species groups or complexes in the subgenus *Pogonomyrmex*. This arrangement is very helpful from a taxonomic standpoint for by keying the complexes the subgenus is broken up into small, easily handled groups of species.

Perhaps the best index of the thoroughness with which Dr. Cole pursued his field studies is the fact that he was able to secure the sexual castes of nineteen of the twenty-two species studied. As things stand in ant taxonomy today this is a surprisingly large proportion and the benefits are clearly apparent, for he has been able to back up differences in the worker caste with others derived from the male and female castes.

Most of the key characters are illustrated, and a glossary covering the contractions used in the diagnoses is supplied. Each species is furnished with a distribution map or a locality list. When Dr. Cole sent me the typescript of his book a year or so ago I wrote him that, while I understood that the number of stations collected was far too large to include all of them, I was disappointed that this should be true. There is a peculiar pleasure in

coming on a station in a locality list which you know lies at the end of a particularly ghastly stretch of road. The response is always, "By George! He got in there!" I am sure that Dr. Cole's omission of the full list of locality data has deprived those who know the areas which he worked of many such pleasures. But this is the only thing about the book which is to be regretted.

In conclusion, it may be emphatically stated that no one interested in the taxonomy of *Pogonomyrmex* can afford to be without Dr. Cole's book.

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